



# Petroleum Development Oman L.L.C

## Personal Protective Equipment Specification

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## Table of Contents

1	Introduction .....	5
1.1	Purpose.....	5
1.2	Scope and Applicability .....	5
1.1	Review and Improvement .....	5
1.2	Compliance Requirements General.....	6
1.3	General Requirements for PPE .....	6
1.4	PPE Identification - Risk Assessment.....	7
1.5	Responsibilities .....	8
1.6	Performance Monitoring.....	8
2	Personal Protection Equipment .....	9
2.1	Clothing in the Workplace .....	9
2.2	Head Protection .....	10
2.2.1	Helmets for Working in Confined Space .....	10
2.2.2	Helmets for Working at Height/Rope Access.....	10
2.2.3	Unsafe Practices .....	11
2.2.4	Cleaning.....	11
2.2.5	Inspection and Maintenance .....	12
2.2.6	Reissue of Safety Helmets.....	12
2.2.7	Working Life .....	12
2.2.8	Accessories.....	12
2.3	Personal Hearing Protection .....	13
2.3.1	Types of Hearing Protection.....	13
2.3.2	Marking .....	14
2.4	Eye Protection.....	14
2.4.1	Eye Protection against Stray Radiation.....	15
2.4.2	Maintenance and Re-Issue .....	15
2.4.3	Replacement.....	16
2.5	Foot Protection.....	16
2.5.1	Application.....	16
2.5.2	Fitting and Care of Footwear.....	16
2.6	Hand Protection .....	17
2.6.1	Basic Requirements .....	17
2.7	Fall Protection / Recovery from Confined Space.....	18
2.8	Safety Harnesses, Lanyards and Lifelines.....	19



2.9	Respiratory Protective Equipment (RPE).....	20
2.9.1	Air-purifying respirators .....	21
2.9.2	Air-supplied respirators .....	21
2.9.3	Devices which Supply Air.....	22
2.9.4	Respiratory Protection Program.....	22
2.9.5	Selection .....	22
2.9.6	Instruction.....	23
2.9.7	Maintenance.....	23
2.9.8	SCBA .....	23
2.9.9	Air-line Respirators.....	24
2.9.10	Emergency Escape Breathing Apparatus (Escape Set) .....	24
2.9.11	Emergency Escape Hoods.....	25
2.9.12	Qualifications of Maintenance Personnel.....	25
2.9.13	Air Purity (Quality) .....	25
2.9.14	Fitness of SCBA or Air-line Users .....	25
2.10	Other Personal Protective Equipment.....	26
2.11	Training of Users.....	26
3	Visitors and Contractors .....	27
4	Definitions and Abbreviations .....	28
5	Formats, Templates & additional information .....	29
5.1	Appendix 1 – H2S Detection System.....	29
5.2	Appendix 2 – Gas detectors.....	31
5.3	Appendix 3 – OSHA Standard .....	33
5.4	Appendix 4 – Glove Types for Chemical Handling .....	34
5.5	Appendix 5A – Additional information on Different Glove Types .....	35
5.6	Appendix 5B – Additional information on Different Glove Types .....	36
5.7	Appendix 5C – Additional information on Different Glove Types .....	37
5.8	Appendix 5D – Additional information on Different Glove Types .....	38
5.9	Appendix 5E – Additional information on Different Glove Types .....	39
6	Appendix 6A/B – PPE Checklist .....	40
7	Appendix 7 PPE Training Log.....	42



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7.0	July 2024	<ol style="list-style-type: none"><li>1. Addition of the windsock's specification</li><li>2. Removal of Personal Gas Detection Set Points and link to the SP1231</li></ol>
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5.0	July 2016	<ol style="list-style-type: none"><li>1. Change to section 1.2 impact gloves, Leather aprons, flame retardant clothing for firefighting, H2S Monitors and Radiation Badges.</li><li>2. Change to section 1.3 The applicable regulatory authority.</li><li>3. Change to section 1.4 the contractors been added to the distribution list.</li><li>4. Change to section 1.6 employer responsibility to provide PPE and training, supervisor responsibility to show the staff appropriate PPE and requirement to wear PPE, Inspection and calibration requirements been added to records of PPE maintenance.</li><li>5. Change to section 1.8 Responsibilities table and Legend.</li><li>6. Change to section 2.1 Disposable coveralls for NORM and Spray Painting.</li><li>7. Change to section 2.4 specify the use of clear glasses (Indoors and night). Update the International Standards for UV protection, update the international standards for welding helmet lens and welding glasses.</li><li>8. Change to section 2.7 add Recovery from confined space to fall protection.</li><li>9. Change to section 2.8 Useful table on Respirators and Breathing apparatus that could be used as guidance and link to Guidance on the Personal Protective Equipment at Work.</li><li>10. Change to section 6.1 Specify the requirements for the visitor to wear all and correct PPE.</li></ol>
4.0	30/09/2013	<ol style="list-style-type: none"><li>1. Hyperlink the SP1257 on scaffolding under section 2.8, page 22.</li><li>2. Deletion of line "(This is not a policy in PDO, and we have procured the Hooded Mask for bearded workers)"</li></ol>
3.0	29/06/12	<ol style="list-style-type: none"><li>1. Revamped and revised version of SP1234 which is now retired. The current document aligns fully with the revised CP-122</li><li>2. Alignment to CMF template</li><li>3. Inclusion of RASCI, Implementation monitoring checklist, visitors / contractors PPE requirements</li><li>4. Inclusion of all types of PPE relevant to PDO operations</li><li>5. Reference to current PPE standards in AS/BS/EN</li></ol>
2.0	24/06/02	Minor editorial changes. Change of Custodian and Author to Hamed Khalfan (CSM/11).
1.0	18/02/02	Initial issue. Supersedes HSE Standards Manual - Chapter 4 and SRD/01.



## 1 Introduction

Personal Protective Equipment (PPE) comprises a range of clothing and equipment which is worn by the individual to protect or shield their bodies from workplace hazards.

Employers shall, provide their employees with sufficient, fit for purpose personal protective clothing and equipment to protect them against workplace hazards, without any cost to the employees.

In the Hierarchy of Controls (Elimination, Substitution, Isolation, Engineering, Administration and PPE), PPE is considered the least satisfactory method in the prevention of work-related injury or illness and is only to be used when other measures are not feasible or cannot be implemented immediately. Provision of PPE shall always be accompanied with information, instruction and training as to the correct use and limitations. PPE shall be selected following a documented risk assessment and shall meet the minimum protection standard outlined for specific PPE in this HSE Specification.

### 1.1 Purpose

This Specification describes PDO's minimum standards for the design, selection, use of PPE selected to reduce workers exposures to workplace hazards.

This specification establishes the various roles and responsibilities involved in selection, issue and maintenance of PPE.

The PPE checklist (Appendix 6A/B) referred to in this specification is designed as a tool to evaluate the effectiveness of the PPE program.

### 1.2 Scope and Applicability

This document applies to all PDO employees, Contractor and Sub-Contractor personnel & visitors.

### 1.1 Review and Improvement

This document shall be reviewed in case of any major changes resulting from recommendations of Audits, changes in industrial standards or changes in regulation/law as advised by the applicable regulatory authority. The Document Custodian will update the changes as applicable, but no less frequently than every four years. Any user of this document who encounters a mistake or confusing entry is requested to immediately notify the Document Custodian.

Unless otherwise stated in this Specification, the standards and references used are the latest versions issued. If any change occurs the latest edition shall be used.

### Distribution

This document shall be distributed to all PDO, contractors and sub-contractors' staff through PDO HSE Web Page.



## 1.2 Compliance Requirements General

Legal requirements for industrial safety in Oman are stipulated in Article 18 of Chapter 3 of the Ministerial decree no 286/2008; Issued on the 22nd June 2008 and Effective as on 1st July 2008.

It is the duty of the employer to ensure safety in work areas and provide PPE as per the above Ministerial Decree.

Additional legal requirements for industrial safety in Oman are stipulated in Chapter 6, article 87 of Labour Law published in the Official Gazette No. 742, dated May 3, 2003.

Inspectors appointed by the Ministry have the power to examine the worker-related records of an establishment and to enter places of work. Inspectors also have the authority to question whoever they wish and to publish reports on the results of their investigations.

## 1.3 General Requirements for PPE

PPE shall be selected following a risk assessment that takes these conditions into account. The fact that PPE that may increase the net heat load on an individual shall be included in the risk assessment process.

Employers shall ensure that adequate PPE is selected in accordance with the following criteria. PPE shall:

- Give protection against risk(s) without leading to any increased risk in itself
- Be suitable for the personnel, including correct fitting and comfort
- Be compatible with the work activity and other types of PPE worn
- Comply with a recognised national or international standard of design or construction defined in each of the following sections of this Specification

PPE and the necessary training in its use shall be provided by the employer.

All personnel shall be held responsible for proper care and use of any PPE supplied to them.

Employers shall replace, free of charge to the employee, any PPE that becomes deficient in any way through normal work usage or wear and tear, such that always the worker has adequate protection.

Normal wear and tear shall include the period of effective use specified by the manufacturer and requirements of basic hygiene standards.

Employees will ensure that PPE, where possible, is marked with their company number i.e. indelible marking e.g. inside helmet, collar of coveralls.

Records of maintenance / inspection / calibration (as applicable) of all breathing apparatus, H2S personal monitors (refer to [PR-1078 - Hydrogen Sulphide Management Procedure](#) and [SP-1219 - Well Engineering Hydrogen Sulphide Specification](#)), safety harnesses, and TLD radiation badges shall be maintained.



All employees shall always wear the appropriate PPE supplied to them while working at their assigned tasks. Supervisors shall enforce strict disciplinary action on any employee who fails to comply without valid reasons.

- A worker shall not use PPE that is not in a good condition to perform the function for which it was designed and shall be empowered to request for a replacement for his PPE.
- PPE shall be inspected, as per manufacturer recommendation, as part of the company inspection programme.

#### **1.4 PPE Identification - Risk Assessment**

A first critical step in identifying the appropriate PPE is to identify the chemical, physical, mechanical and biological hazards in the workplace. This process known as a "risk assessment" and shall be carried out for each work activity and included in the Job HSE Plan.

Following the completion of the full risk assessment review, to identify the PPE control measures, a physical review, including a site walk-through survey of the facility, is conducted to affirm the statements in the Risk Assessment.

Clear signage indicating the mandatory PPE for that area/task shall be clearly posted at the respective work-areas.

The following factors shall be considered when assessing the suitability of PPE:

- Is the PPE appropriate for the risk involved and conditions at the place where exposure may occur? E.g. goggles are not suitable when full-face protection is required.
- Does the PPE prevent or adequately control the risks involved without increasing the overall risk?
- Can the PPE be adjusted to fit the wearer correctly? e.g. if a person wears glasses, ear defenders may not provide a proper seal to protect against noise hazards.
- Has the state of health of those using it been taken into consideration?
- What are the needs of the job and the demands it places on the wearer? How long will the PPE need to be worn? What are the requirements for visibility and communication?
- If more than one item of PPE is being worn, are they compatible? For example, does a respirator make it difficult for eye protection to fit properly?

The supervisor shall maintain all risk assessment worksheets that are applicable to the site / activities. A copy of the hazard assessment is used by supervisors to assist in instruction of new or transferred employees.



### 1.5 Responsibilities

Job Description	Line Manager	Eng & Ops Managers	DTL	CSR	Production & Maintenance Coordinators	CH	Contractor Managers	Supervisors	HSE TL / Managers / Advisors	Worker	OH & Industrial Hygienists	PPE Focal Points (SAP / Administrative Support)	Procurement
Risk Assessment to determine appropriate PPE for the task	A	R						R	S	S	S		
Map & determine areas where PPE is applicable		R						S	S				
Procurement of PPE		A				S	S					S	R
PPE Inventory		A										S	R
Issue of PPE			A	A	S								R
Enforce the use of PPE			A	A	R	S	S	R					
Maintenance / inspection / calibration of PPE								A	S				
Reissue of PPE			A	A	S			R					
Destruction of use and returned PPE			A	A	S			R					
Training in the effective use of Task-specific PPE					R	S	S	R	S	R			
Maintaining the PPE issue records					A			R					
<b>Legend:</b>			<b>R = Responsible</b> for doing the action										
			<b>A = Is held accountable</b> if the activity is not implemented										
			<b>S = Is expected to provide implementation support</b> when asked for										

### 1.6 Performance Monitoring

When conducting inspections or audits the PPE checklist (Appendix 6A/B) shall be used to capture non-conformance to PPE specification.

## 2 Personal Protection Equipment

As a minimum, Coveralls, Hardhat, Safety Glasses and Safety boots shall always be worn in the PDO operational areas including well locations, pipeline, facility maintenance and construction sites. Hearing protection such as ear plugs or muffs shall be provided in all rigs and at Production stations, construction sites, fabrication





workshops or areas where noise levels are likely to exceed an average sound pressure level of 85 dB(A).

All PPE provided shall be CE marked or meet one of the relevant international standards. Training of workers to correctly fit, use, test and maintain PPE shall be conducted by competent personnel and documented.

All PPE prescribed and issued to staff shall be issued and replaced at no cost to the employee and employees shall be trained in the correct use and care of the equipment. Facilities for correct storage and maintenance of the PPE shall be provided by the employer.

**Note:** It is mandatory to conform to the standards mentioned against each of the PPE and pictures of PPE are only indicative examples.

### 2.1 Clothing in the Workplace

Coveralls made of 100% cotton with reflective strips are mandatory while working in fabrication, construction and operational areas. This is applicable to both male and female PDO and Contractor employees. PDO Assets and Contractors are responsible to define the appropriate PPE for specific operations. Female visitors from PDO, Family and Ministerial or Other Organisations dressed in Abayas or loose-fitting clothing are restricted from operational sites unless in an appropriate coverall. These may be issued prior to the visit on request from the respective HSE focal points. These coveralls are to be issued on a returnable basis.

<b>Material</b>	Cotton 100% (Sulfurized)
<b>Weight, material</b>	g/m2 200/210
<b>Sleeves</b>	Long sleeve.
<b>Color</b>	light blue / forest Green
<b>Zip fastening</b>	heavy duty (preferably brass zipper, 5 mesh auto-lock, double slider, closed end or equivalent)
<b>Company logo</b>	Logo fixed on the left breast pocket with a white liner control line around it.
<b>Reflective Tapes</b>	Stitched with reflective 3m scotch tapes on both sleeves, both legs and back panel
<b>Pockets</b>	Two-way side pockets.
<b>Belt</b>	No belt
<b>Velcro fastenings</b>	On sleeves, breast and back pockets
<b>Additional requirements</b>	Pre-shrunk and suitable in Oman climatic Conditions. Fabric shall be thoroughly Pre-shrunk before being used in the production of finished coveralls. This is an important factor as PDO coveralls are laundered at 60 deg c.



A - Balaclavas shall be available to personnel working in high dust and open areas, especially with high winds. Protective cloth hoods for covering the head, ear and neck for use with safety helmet shall be made of 100% cotton.

B - Some activities may require employees to wear specific coveralls, aprons or chemical protective suits to prevent dermal exposure. Disposable coveralls for Naturally Occurring Radioactive Materials (NORM) shall be manufactured from Tyvek or similar breathable material and be antistatic.

**Note:** Placing workers in additional coveralls or aprons may significantly increase the workers risk of heat strain and the employer and supervisor shall perform a risk assessment for such activities.

Disposable Coveralls for NORM and Spray Painting shall meet the FFP3, standards (waterproof and breathable membrane made through lamination of white micro-porous PE film and white non-woven antistatic polypropylene material - resistant to nuclear particles).

## 2.2 Head Protection

In general, a safety helmet meeting either BS EN 397:2012 or ANSI Z89.1-2014, shall be worn where:

- there is a possibility that a person may be struck on the head by a falling object;
- a person may strike his/her head against a fixed object; or
- Inadvertent head contact may be made with electrical hazards.
- Mandated such as production stations, rigs and standalone units, pipeline maintenance, site fabrication and construction locations.



### 2.2.1 Helmets for Working in Confined Space

It shall be noted that 'bump caps', commonly worn to protect against minimum sideways impact, do not provide protection against any of the hazards described above. EN812 bump caps may only be considered for specific low risk areas and only then after a formal risk has been completed and subsequently approved by TA2 Team Leader. If Bump Caps are provided, they must be of the Hi-Viz colour range namely Saturn yellow or orange.

### 2.2.2 Helmets for Working at Height/Rope Access

Helmets required for certain working at height activities such as rope access and tower access shall meet industry standards. The helmets may also be considered for rescue crews particularly in confined space rescue and medic response.). The helmets shall meet the BSEN397:1995 specification for industrial safety helmet & Head protection – BSEN397 Safety helmets (peaked).



<b>Design spec</b>	ISEA Z89.1:2014	  
<b>Material</b>	POLYETHYLENE	
<b>Accessories</b>	SUSPENSION & 3POINTS CHIN STRAP	
<b>Colour:</b>	White/Green/Yellow	
<b>Type:</b>	VANGUARD, WITH Company LOGO	
<b>Protection:</b>	TOP AND LATERAL	
<b>Adjustable size:</b>	Class E, Shell – HDPE (High Density Polyethylene).	
<b>Temp. Resistance:</b>	30 °C up to max +50°C	
<b>Electrical properties</b>	VDE-tested (1000 V).	
<b>Sizes:</b>	Range (INCH 7.1/2 - 8.1/2)	
<b>Other Applicable Reference Standards</b>	Head protection: ANSI Z89.1-2003, ANSI Z89.1-1997 and ANSI Z89.1-1986	
<p>Minimum will meet CE:</p> <ul style="list-style-type: none"> <li>EN 397 and EN 12492 standards for protection against impact.</li> <li>EN 397 and EN 50365 standards for electrical insulation.</li> <li>EN 397 standard for molten metal splash, lateral deformation &amp; use in low temp.</li> </ul> <p>BS EN 12492 - A safety helmet recommends a mountaineering style helmet.</p>	<p>Note that helmets with a chinstrap, compliant with EN 397 but not with EN 12492 are not suitable for working at height, which could result in strangulation. Ideally helmets should comply with both EN 12492 and EN 397.</p> <p>ANSI Z89.1-2014 Type I Class E</p>	

**2.2.3 Unsafe Practices**

The following practices are considered detrimental to the safe working life and performance of the helmet and shall be avoided:

- Storage or placement of helmets near any window, particularly the rear window of motor vehicles, through which excessive heat can be generated. Note: Helmets placed on the rear window ledge of motor vehicles may also become dangerous projectiles in the event of an accident or when sudden braking occurs.
- Follow manufacturer's cleaning instructions; the helmet may be damaged and rendered ineffective by petroleum and petroleum products, cleaning agents,



- paints, adhesives etc., without the damage being visible to the user.
- Alteration, distortion or damage to the shell, e.g. splits and cracks, or to the harness.
- The use of safety helmets for any other purpose than that for which they are designed, e.g. as seats, liquid receptacles, wheel chocks.

#### **2.2.4 Cleaning**

It is recommended that safety helmets be cleaned regularly. In general, normal washing methods using warm water and soap are adequate. The use of solvents, very hot water, or harsh abrasives is not advisable.

#### **2.2.5 Inspection and Maintenance**

All safety helmet components and accessories shall be visually inspected prior to use by the wearer, for signs of dents, cracks, penetration or other damage due to impact, rough treatment or unauthorised alterations which may reduce the degree of safety originally provided.

Helmets showing damage or deterioration to the shell shall be immediately withdrawn from service and discarded (destroyed). Helmets with sound shells but with damaged or defective harness components shall be withdrawn from service and the complete harness and cradle replaced.

#### **2.2.6 Reissue of Safety Helmets**

No safety helmet shall be reissued unless the helmet has been thoroughly cleaned and inspected. In general, when a helmet is being re-issued to a different person at least a new sweatband shall be fitted.

#### **2.2.7 Working Life**

Excessive discolouration of the shell colour or weathering of the surface may indicate a loss of strength. Helmets which have been in service for longer than 3 years shall be thoroughly inspected and replaced as necessary.

Plastic components of harnesses may deteriorate more rapidly under aggressive service conditions and in these cases, harnesses shall be replaced at intervals not longer than 2 years and/or as per manufacturer's specification

To comply with EN 397, all helmets are marked with the quarter or month and year of manufacture. If helmets are stored in boxes in which they were supplied and do not experience environmental extremes, the shelf life of a helmet is not limited. However, it is not recommended that a helmet shall be in use five years after date of manufacture.

If the helmet has been used regularly it shall be replaced after three years from the date of issue. The date of issue shall be marked on an additional sticker on the inside of the helmet at the back of the shell. The date of issue is not necessarily the same as the date of manufacture

The harness/headband has a life of two years and shall be replaced at an earlier date.



### 2.2.8 Accessories

A wide range of accessories can be fitted to helmets to make them more suitable for variable working conditions. Examples are as follows:

- A retaining strap worn either under the chin or at the nape.
- A bracket and cable clip for the attachment of a lamp.
- An eye shield, face shield or welding shield.
- A wide brim for additional sun protection
- Earmuffs

Care shall be taken to ensure that accessories and their attachment systems do not reduce the safety characteristics of the helmet nor adversely affect the balance or comfort of the helmet. Chin straps can introduce a strangulation risk and take care in the choice of straps. Care shall be given to the electrical resistance.

### 2.3 Personal Hearing Protection

A personal hearing protector is a device, or pair of devices, designed to be worn over, cover the ear canal entrance, or inserted in the ears of a person to protect their hearing. Personal hearing protectors shall be used when levels of excessive noise cannot be reduced by using other control measures. Workers or others at the workplace shall be:

- supplied with personal hearing protectors of correct rating and suitable for the work conditions
- instructed in their correct use
- instructed to wear them when exposed to noise
- monitored to ensure they wear hearing protection.

Personal hearing protectors shall not be used as a substitute for engineering or administrative noise control measures.

Owing to the variance in individual's ear canal sizes, the employer shall provide at least three types of hearing protection. Employees shall be trained on how to correctly fit and maintain if necessary, the hearing protection provided meeting EN352-2002 or Australian Standard AS1270- 2002.

It is a statutory obligation for an employer to provide personal hearing protection where a worker is exposed to a continuous noise level exceeding 85 dB(A) for 8-hours or 82 dB(A) for 12-hours or an instantaneous or peak Limit of 140 dB(C). Where the noise level exceeds 85 dB(A) it shall be signposted e.g. in production stations and rigs. Many handheld tools such as grinders, jackhammers, drills exceed 85 dB(A). Any person directly working with or near noisy handheld power tools shall be provided with appropriate hearing protection even for intermittent use.

The selection of hearing protection shall be based on sound level measurements and octave band analysis for tonal noise or noise levels exceeding 100 dB(A). Hearing protection shall be selected to attenuate the in-ear protection to between 80 -75 dB(A). e.g. for an average sound pressure level of 95 dB(A), hearing protection of 18-21 dB(A) shall be selected.




Workers required to wear hearing protection for their daily activities shall be included in an audiogram program.



**2.3.1 Types of Hearing Protection**

There are two main types of hearing protection:

- (a) Earplugs: These fit into or cover the ear canal, to form a seal. They sometimes have a cord or neckband to prevent them being lost. They can be permanent (indefinite use), reusable (use only a few times) or disposable (use once);
- (b) Earmuffs: These are normally hard plastic cups, which fit over and surround the ears. They are sealed to the head by cushion seals (filled with plastic foam or a viscous liquid). The inner surfaces of the cups are covered with a sound absorbing material, usually soft plastic foam. They can be headband or helmet mounted and some can have communication equipment built into them.

Hearing Protection	Description	Image
<b>Ear Muff</b>	Earmuffs completely enclose the ear with a hollow cup. Earmuffs use a spring tensioned headband to hold the cups in place over our ears at a certain clamp force to provide the desired reduction.	
<b>Helmet Mounted Ear Muff</b>	For situations where workers enter and exit noisy areas or need hearing protection intermittently, muff mounted hearing protection may be beneficial. It is easier to fit, affords good comfort and is easy to carry.	
<b>Disposable Ear Plugs</b>	Earplugs are inserted in the ear canals. They must be fitted sufficiently deep to completely block off our ear canals and to be self-supporting. There are three main types of earplugs, i.e. pre-moulded earplugs, individually moulded earplugs and adaptable earplugs. A minimum of two types shall be provided by employers to account for individual variability.	

**2.3.2 Marking**

The following information shall be marked on every hearing protection device, except earplugs for which the information shall be on the packaging:

- The name or registered trade name or mark of the manufacturer.
- Product identification or catalogue number.
- Directions to indicate how the hearing protection device shall be worn if it cannot be worn symmetrically, e.g. correct technique for fitting ear plugs.
- The SLC80 or Noise Reduction Rating (NRR)

No hearing protection device shall be used unless it complies with current relevant Australian or British Standards and carries the AS1270 or EN 352 compliance mark.






**2.4 Eye Protection**

The employer shall provide appropriate hazard specific eye protection for all workers where a risk of eye injury (mechanical, physical or chemical) exists. In PDO interior locations, the minimum standard is to provide safety sunglasses with 100% UV protection for daylight operations and clear safety glasses for night operations or indoors e.g. workshops. Other hazards include flying particles, dust, chemical splashes, aerosols, mists and high intensity radiation from welding operations, lasers, trans illuminators and



strong heat sources. Safety eyewear shall always be worn in operational and industrial areas.

Safety eyewear frames and lenses shall be tested and marked with the CE symbol, the manufacturer’s logo and the standard. Eye protection shall meet the EN 166:2001 standards and EN172-2001 for UV protection. Fashion eyewear is not acceptable. Prescription safety glasses shall be provided to employees who require wearing prescription glasses. Other applicable standards are: Eye and face protection: ANSI Z87.1-2003, ANSI Z87.1-1989 (R-1998) and ANSI Z87.1-1989.

<p><b>Safety Glasses</b> They shall be marked with the: Radiation Protection, Lens shielding, Optical quality</p>	<p>For example, 5 – 2.5 1FT The 5 indicates 100% UV protection. The figure that follows immediately afterwards indicates they have a shading level of 2.5 (the third highest in the range). Next are the EN166 ratings for optical quality and strength. 1 is the highest optical class and then the letters 'F' and 'T' indicate they are capable of withstanding impacts from small objects travelling no faster than 45m/s even at extreme temperatures Safety glasses shall have a 100% UV protection for daylight operations which is a minimum of Class 5.</p>	
<p><b>Chemical goggles</b></p>	<p>protect eyes from certain airborne particulates and <b>chemical splash</b>, feature vents designed to help prevent liquids from entering the eye area. The headband is <b>chemical</b> resistant.</p>	
<p><b>Face shield</b> A device which includes a transparent visor, supported in front of the face to shield the eyes.</p>	<p>Face shields are intended to protect the entire face or portions of it from impact hazards such as flying fragments, objects, large chips, and particles. When worn alone, face shields do not protect employees from impact hazards. Use face shields in combination with safety spectacles or goggles, even in the absence of dust or potential splashes, for additional protection beyond that offered by spectacles or goggles alone.</p>	
<p><b>Welding helmet with lens</b> Handheld shields shall not be used for welding activities either by the welder or helper. The helper for arc welding etc. shall also wear a welding helmet as safety glasses do not afford enough protection to protect against welder’s flash. Shall meet EN 169:2002 or equivalent</p>	<p>A rigid eye protector which is worn by the welder to shield the eyes, face, forehead from UV radiation and sparks during welding activities. The Lens shade shall be selected based on the welding process and amps. There are a range of lens from 7 – 14. As a rule of thumb, start with a shade that is too dark to see the weld or cut zone. Guidance can be obtained from ANSI Z49.1, 1999.</p>	
<p><b>Welding goggles or glasses</b> Welding Goggles are designed to provide protection for certain types of Gas Welding or Oxygen Cutting applications. Welding Goggles protect your eyes from the heat and flying debris, but also from intense ultraviolet and infrared light. Failure to use proper Welding Goggles can result in Photokeratitis, a painful condition like receiving a severe sunburn of the cornea.</p>	<p>Welding Goggles are available with both Shade 3 and Shade 5 filter lenses. Welding Goggles are designed for Gas Welding and Oxygen Cutting applications. Welding Goggles shall not be used for Arc Welding as these applications require a stronger, darker filter lens. In addition, Welding Safety Glasses help protect welders against Photokeratitis, also known as "welder's flash". Welding Safety Glasses are designed with Shade 3 or Shade 5 Lenses and are primarily used for torch soldering, brazing and cutting. Welding Safety Glasses are not intended for arc welding, which requires a darker lens found in Welding Helmets. Shall meet EN 169:2002 or equivalent</p>	



#### 2.4.1 Eye Protection against Stray Radiation

Arc welding and similar operations shall be carried out in screened enclosures to prevent stray UV radiation. Where this is not possible, the use of mobile screens is mandatory to shield other persons from stray radiation.

#### 2.4.2 Maintenance and Re-Issue

Measures shall be taken to ensure proper maintenance of eye protectors. These measures include the following:

- The provision of proper facilities for storage, cleaning, servicing, and replacement of eye protectors and lenses.
- A system to ensure that all personnel are familiar with the arrangements for cleaning, repairing and replacing damaged or faulty equipment, and for correcting or adjusting uncomfortable eye protectors.
- Inspection and cleaning of all eye protectors at regular intervals, after use, and before re-issue to another person.

The manufacturer's instructions for the cleaning of eye protectors shall be adhered to.

#### 2.4.3 Replacement

Eye protectors and lenses shall be replaced when usage, accidental damage or age has resulted in deterioration of the properties of the eye protectors to a stage where continued use could itself be hazardous, or where the eye protectors no longer comply with the relevant standard.

Lenses which have been scratched, abraded, pitted or otherwise damaged shall be replaced because the protection afforded by them may be reduced and vision impaired.

### 2.5 Foot Protection

#### 2.5.1 Application

Tasks where foot protection may be required include construction, demolition, building repair, manual handling where there is a risk of heavy objects falling on the feet, work in extremely hot or cold environments, work with chemicals and forestry. Safety footwear shall always be worn in operational and industrial areas.

There are several types of safety footwear: safety boots or shoes. Normally have steel toecaps but can have other safety features (e.g. steel mid-soles, slip resistant soles, insulation against heat and cold).

Where there is a risk of slipping that cannot be avoided or controlled by other measures, attention shall be given to the slip resistance of soles and replacement before the tread pattern is overly worn.

#### 2.5.2 Fitting and Care of Footwear

When issuing new safety shoes/boots ensure the following:

- Feet are measured for the correct size.
- Have shoes fitted whilst standing and towards the end of the day.





- Properly and comfortably fitted footwear shall not need to be

'broken in'. Footwear shall be kept clean and stored in a cool, dry place away from sunlight. No unauthorised alterations shall be made to the footwear. Safety shoes shall meet the standards:

- BS EN 15090:2012 Footwear for firefighters
- BS EN ISO 20345:2011 Safety footwear
- BS EN ISO 20346:2014 Personal protective equipment. Protective footwear
- BS EN ISO 20347:2012 Occupational footwear

## 2.6 Hand Protection

Where there is a danger to a worker's hand(s) or arm(s), the supervisor shall ensure that the worker wears properly fitting hand or arm protection that is appropriate to the work being done and the hazards involved. A comprehensive list of hazards shall be compiled for each workplace and suitable hand protection obtained for each process.

### 2.6.1 Basic Requirements

- A. Gloves SHALL be worn when performing work tasks outside the accommodation, office, or control room. Gloves SHALL be worn any time the worker is outside the accommodation, office, or control room, unless the task procedures or work practices specifically advise against wearing gloves.

Note: Construction and maintenance tasks (cleaning, carpentry, electrical, moving furniture, etc.) in the accommodation, office, or control room are included in the scope of this specification. Office-based tasks such as writing, and keyboarding are excluded from the scope of this specification

- B. Tasks SHALL be evaluated to determine applicable hazards and appropriate hand protection. Gloves suitable for the task (i.e. impact resistant, cut resistant, electrically insulated, etc.) SHALL be worn until the task is complete.

Note: There may be times when gloves are temporarily removed during a task (i.e. for a specific action requiring high dexterity such as writing or adjusting small electrical/communications components). Prior to glove removal the worker SHALL appropriately evaluate and mitigate potential hand hazards present.

- C. Gloves SHALL be used, maintained, and discarded according to the manufacturer's recommendations.
- D. Prior to each use, gloves SHALL be inspected for damage or excessive wear. Cuts, punctures, holes, or cracking may render the gloves ineffective. Properly dispose of damaged gloves.
- E. When performing tasks involving chemical handling or potential exposures, (MSDS) or equivalent safety information SHALL be checked to verify the appropriate glove type. Using the wrong glove may result in the rapid degradation of the glove material, negating the desired protective properties.

Note: Chemically resistant gloves may degrade after repeated chemical exposures. Swelling, cracking, shrinking, or discoloration may indicate a change in the glove material, preventing it from providing the necessary chemical protection. Properly



dispose of damaged gloves.

- F. Barrier creams are not adequate protection from chemical exposures. Appropriate chemically resistant gloves SHALL be worn when handling potentially harmful chemicals.
- G. Gloves SHALL be the proper size for the hand of the worker. Improperly fitting gloves can decrease the effectiveness of the worker in performing the required tasks and can increase the potential for inadvertent contact with hazards.

Note: "One Size Fits All" is NOT appropriate in selecting most glove types.

- H. Where multiple glove types are required, use of a break-away glove clip is recommended to ensure the appropriate gloves are readily available.

The gloves shall meet the following Standards for their intended use:

- EN 420-2009 for general requirements
- EN 388-2018 standards for Protective gloves against mechanical risks.
- EN 60903:1914 Specification for rubber gloves for electrical purposes.
- EN 374 Protective gloves against chemicals and micro-organisms

EN455-2009 Part 1 & 2, EN420-2009 & ASTM D3578-2005. The gloves are used for those with skin allergies. A complete list of Glove Types is in Appendix 5A/B/C/D/E:

## 2.7 Fall Protection / Recovery from Confined Space

Where there is a danger to a worker of falling, the supervisor shall ensure that:

- The worker is provided with a safety harness and a lifeline in such a fashion to prevent the worker from striking a surface below his workplace, and;
- The fall protection devices protect the worker from receiving a serious injury due to the action of the devices.
- Fall protection systems are generally defined as either active or passive. A passive system requires no action on the part of the user. An active system requires action by the user, such as connection to a tie-off point.
- In some instances, working at elevated levels requires the construction or assembly of a scaffolding system or a harness support structure. Depending on the height above the floor or ground, various guardrails and toe boards may be required. Design and construction of scaffolding systems are beyond the scope of this manual chapter.

Safety harnesses and lifelines shall be provided, worn and properly secured in all work situations where any of the following dangers exist:

- Falling from a height greater than 2m;
- Occurrence of toxic atmospheres or oxygen deficiency. Where this involves working in a confined space, the requirements of PR-1148 "Entry into a Confined Space" shall be followed, as well as the specific precautions identified by the Permit to Work, Job Safety Plan and Confined Space Entry Certificate

Such situations include, but are not limited to:

- Work on any high structure, including petroleum processing plants, drilling rigs, storage tanks, etc. without a proper working platform (i.e. a platform with handrail, knee and toe boards) whether in construction or maintenance



- Work over water
- Rescue work, in firefighting, from high structures and from hazardous atmospheres
- Abrasive or hydro blasting from high structures
- Safety belts shall not be used, only safety harnesses shall be used.

Specific written risk assessment will be required prior to purchase and/or use of such equipment. The risk assessment will determine the safety requirements and measures needed to be taken prior to use, including information instruction and training. All safety harnesses and lifelines shall be manufactured and inspected in accordance with:

- BS EN 361 -2002 Personal Protective Equipment Against Falls from a Height - Full Body Harnesses
- BS EN 363 – 2008 Personal Protective Equipment Against Falls from a Height - Fall Arrest Systems
- BS EN 354 – 2010 Personal Protective Equipment Against Falls from a Height - Lanyards

Guidance is available in:

- BS EN 358 PPE-2019 for work positioning and prevention of falls from a height: Belts for work positioning and restraint and work positioning lanyards
- BS EN 360 - 2002 PPE against falls from height: retractable type fall arresters (e.g. blocks)

BS EN standards may be applicable depending on the equipment required.

## 2.8 Safety Harnesses, Lanyards and Lifelines

Safety harnesses, lanyards, and lifelines are the most common fall protection / confined space recovery systems used by PDO employees. Safety harnesses and lifelines are used according to the applicable regulatory requirements. Some general requirements for harnesses, lanyards, and lifelines include:

- The anchorage point for the system shall be a structural member capable of supporting at least a 5,400 pound (2,450 kg) dead weight load.
- Lanyards shall be a minimum of one-half inch diameter nylon or equivalent. The maximum length shall allow for a maximum fall of six feet. The rope shall have a nominal breaking strength of 5,400 pounds (2,450 kg).
- Safety harnesses are used in lieu of safety belts.
- For other than rock-scaling operations, lifelines shall be a minimum of three-quarter inch manila or equivalent with a minimum breaking strength of 5,400 pounds (2,450 kg).
- In general, employees shall use a safety harness system, secured to a lifeline or substantial structural member, whenever:
  - Using a powered platform (short lanyard)
  - Using a scaffolding system 20 feet (6m) or more above the ground or floor e.g. tower system. Please refer to page 10 in SP1257 for more information on Scaffolding
- Working at a height of six feet (2m) or greater above the ground or floor
- Retractable fall arrest equipment shall be inspected, and function checked by a trained competent person at least every 6 months. In addition, it shall be



- sent annually for full servicing and testing by a manufacturer approved facility.
- Refer SP-1256 “Work at Height & Access” to WAH inspection checklist the working at heights training requirements and inspection minimum frequencies inspection set out also.

Guidance is available in:

- BS EN 361 – 2002 PPE against falls from height: full body harnesses;
- BS EN 363 - 2008 Fall arrest systems;

## 2.9 Respiratory Protective Equipment (RPE)

There are certain activities that require the employer to provide respiratory protective equipment (RPE) such as confined space entry, firefighting, emergency rescue and escape, spray painting, welding.

The Employer shall ensure that no person at the workplace is exposed to an atmospheric contaminant at concentrations in excess of the occupational exposure limits or an unsafe atmosphere as outlined in Royal Decree Occupational Safety and Health Regulations 2009. These include;

- Oxygen deficient atmospheres;
- Acutely toxic atmospheres e.g. H<sub>2</sub>S, Acrolein
- Airborne contaminants e.g. Gases, vapours, fumes, mists, dusts and fibres
- Types of Protective Devices

### 2.9.1 Air-purifying respirators:

These respirators are designed to filter or clean contaminated air from the workplace before it is inhaled by the RPD wearer. They are available as either disposable respirators, or as non- disposable respirators with disposable filters.

- a. Air purifying respirators are respirators with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.
- b. Air purifying respirators shall meet the requirements of BSEN 14387-2008/143-2006 as applicable” or be approved jointly by Mines Safety and Health Administration and the National Institute for Occupational Safety and Health (MSHA/NIOSH).
- c. Air purifying respirators shall not be used for protection in areas where H<sub>2</sub>S is present in the atmosphere.

### 2.9.2 Air-supplied respirators:

These respirators deliver clean, breathable air from an independent source to the wearer. Air- supplied respirators are typically used for high-risk environments, such as oxygen-deficient atmospheres and confined spaces.

There are numerous standards for the design, maintenance and safe use of RPE, however all respiratory protection shall select shall conform with the basic health and safety requirements (BHSRs) of the EC Personal Protective Equipment Directive (89/686/EEC) and carry the CE mark,



- a. The relevant European Standard for filtering face pieces against particles FF P1, P2, P3 is EN 149:2009
- b. The relevant European Standard for valve filtering half masks for use against gases or gases and particles is EN 405:2009
- c. The relevant European Standard for - Self-contained open circuit compressed air BA with full face mask is EN 137:2006

There is a useful table in the UK HSE Guidance that you could use as a guide <http://www.hse.gov.uk/pubns/books/l25.htm>.

Air Supplied Respirators are respirators that supply the user with breathing air from a source independent of the ambient atmosphere and includes supplied-air respirators (SARs) and self- contained breathing apparatus (SCBA) units.

SCBA or SAR shall be provided where:

- airborne contaminants exceed levels safe for filter masks
- there is an atmosphere deficient of oxygen
- the atmosphere is immediately dangerous to life or health

### **2.9.3 Devices which Supply Air**

These include airline respirators and self-contained breathing apparatus. Use of this equipment requires detailed training. Example of use areas may be spray painting, abrasive blasting, confined space entry.

### **2.9.4 Respiratory Protection Program**

PDO projects, maintenance, operations and contractors who decide to use respiratory protection to reduce workers exposures to hazardous airborne contaminants shall develop a respiratory protection program.

The program shall include:

1. An evaluation of the respiratory hazard(s) in the workplace (contaminant and concentration), identifying relevant workplace and user factors, and the base respirator selection on these factors. The respiratory hazard evaluation shall include “a reasonable estimate of employee exposures to respiratory hazard(s)”.

The respirator type or class is then selected by comparing the employee’s exposure to the occupational exposure limit and determining the minimum necessary respirator assigned protection factor. Where the employer cannot identify or reasonably estimate the employee exposure, the employer shall consider the atmosphere as IDLH.

2. Any employee required to wear tight seal fitting respiratory protection shall perform a medical evaluation in line with SP1230 fitness to work requirements. This is mandatory for use of all respirators or voluntary use of elastomeric face-pieces and recommended for voluntary use of filtering face-pieces.
3. According to PDO PR-2108:2019 “Fit Testing for Respirators Users”, Qualitative and quantitative fit testing is mandatory for workers required to use tight-fitting face-pieces. The employer shall ensure that an employee using a tight-fitting



face-piece respirator is fit tested prior to initial use of the respirator, whenever a different respirator face-piece (size, style, model or make) is used, and at least annually thereafter. PDO and contractors shall maintain records of fit testing conducted to demonstrate employees are trained and understand how to correctly fit their respiratory protection. Examples of quantitative fit testing devices readily available in the market are the Porta count Respiratory Fit Tester.

4. Effective training is required before workers are required to use respirators. The training shall be comprehensive, understandable, and recur annually and more often as necessary. It shall include; when to use RPE, maintenance requirements, limitations of the RPE.

#### **2.9.5 Selection**

Employers and Respiratory Protection Coordinators shall when select and maintaining respirators consider the Assigned Protection Factor (APF). The APF is the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by the regulations.

#### **2.9.6 Instruction**

Training in the correct use of equipment is required by law. Instruction shall include:

- How to recognize the need to wear the device.
- Importance of conscientiously wearing the device.
- How the device works.
- Application and limitations of the device.
- How to determine if it is working properly.
- The time for which the device will give protection.
- Procedure for dealing with an emergency when the device is being worn.
- Importance of not removing the device until it is safe to do so.
- Importance of taking care of the device, cleaning, maintenance, storage etc.

#### **2.9.7 Maintenance**

The Supervisor shall ensure that all respiratory protective devices are regularly checked, properly stored and maintained, cleaned and replaced (both mask and cartridges as appropriate) according to applicable standards and manufacturers advice. Appropriate supervision shall be exercised to ensure that equipment is used in accordance with instructions.

Employers and Respiratory Protection Coordinators shall consider the breakthrough when selecting and determining when to change out respiratory protection. Breakthrough is defined as the penetration of challenge material(s) through a gas or a vapor air-purifying element. The quantity or extent of breakthrough during service life testing is often referred to as the percentage of the input concentration. Workers shall not wait for the contaminant to breakthrough before changing out their canisters or cartridges. The exposure shall be determined and if breakthrough is exceeded the canisters shall be replaced more frequently. As a minimum cartridge type respirator shall be replaced within six (6) months of opening the plastic seal.



### 2.9.8 SCBA

SCBA is required to be worn in a sour facility when performing any breaking of system containment until the work area has been tested for H<sub>2</sub>S and declared safe to proceed without BA (e.g. breaking flanges, opening of vessels, opening of pump casings, pipelines, etc). For any BA activity, the Buddy System shall apply (Refer to PR-1081 – The Buddy System) and the Buddy shall remain at a safe vantage point to provide aid or response. Refer PR1078.

BA is also required to be worn when:

- Entering any Red Zone (refer SP-1190)
- Any gas leak occurs, BA shall continue to be worn until mustered in a safe location
- Working in an area where the concentration of H<sub>2</sub>S in air has been tested > 10 ppm or where a build-up of H<sub>2</sub>S could exceed the TLV (e.g. banded areas and low-level areas). Refer to PR-1148 – Entry into a Confined Space.
- Performing wellhead activities, e.g. bleeding down to a pit, flowline operations etc. where H<sub>2</sub>S may be present in gas lift systems.

Performing any sour sampling activity (refer to PR-1096 - Sampling of Oilfield Liquids and Gases Procedure

The SCBA sets to comply with Regulation (EU) 2016/425 on personal protective & shall comply with the requirements of the European Standard EN 137-2007.

SCBA shall comply with any one type: Type 1 for industrial use and Type 2 for firefighting.

The working duration for the SCBA sets shall be selected based on the estimated escape time or exposure time for the related activity.

To ensure safe working in High Risk Sour areas or facilities SCBA sets with enhanced face protection factor to be used.

### 2.9.9 Air-line Respirators

Air-line respirators shall:

- conform to BSEN 138:1994/BSEN 14593-2018 /BSEN 269:1995/BSEN or latest as applicable, or
- be approved jointly by the Mine Safety and Health Administration and the National Institute for Occupational Safety and Health (MSHA/ NIOSH)

In situations where a contractor's respiratory protective equipment is required to be compatible with PDO equipment, any modifications or adaptations shall be constructed so as not to void the original equipment manufacturers approvals.

### 2.9.10 Emergency Escape Breathing Apparatus (Escape Set)

An Escape set is defined as a breathing apparatus that has a portable air supply of compressed air and is designed for the sole purpose of enabling a person to escape from a hazardous atmosphere.

Emergency Escape Breathing Apparatus is never to be used to provide protection in normal work situations. All personnel working with a Critical High-Risk Sour Site SHALL





carry an Escape set, as SHALL those individuals working within the Inner SIMOPS Zone of such a facility.

Immediately upon activation of the device, the wearer is to leave the area of hazardous atmosphere. The breathing apparatus shall be selected such that the time required to allow the wearer to escape to a suitable location shall be within the capacity of the apparatus.

Emergency Escape Breathing Apparatus (Escape Set) shall:

- conform to BSEN 1146-2005 or latest “Respiratory protective devices for self-rescue, Self- contained Open-circuit Compressed Air Breathing Apparatus Incorporating a Hood (compressed air escape apparatus with a hood)”, or
- be approved jointly by the Mine Safety and Health Administration and the National Institute for Occupational Safety and Health (MSHA/ NIOSH)

#### **2.9.11 Emergency Escape Hoods**

An emergency escape hood is an air purifying device which shall be carried by all personnel working within the Emergency Planning Zone (EPZ). They SHALL conform to EN403:2004 and EN14387-2008. They will be used as the primary emergency respiratory protection for use only in the Emergency Planning Zone and the Outer SIMOPS Zone of a Critical High-Risk Sour Facility.

These escape hoods shall be used in the EPZ and Outer SIMOPS Zone where the individual is distant from the hazard initiating event, and the H<sub>2</sub>S content in the air will be lesser.

The escape hoods to be used in EPZ and SIMOPS Zones SHALL be approved by PDO prior to use. The hoods SHALL, as a minimum, be fitted with a filter which provides protection against the following type of gases; B (inorganic gases) and E (acidic gases). The resistance time of the hood and filter contaminant removal, is to be selected as appropriate, considering likely concentrations and time to remove personnel from the affected area. Class B2/E2 filters are considered suitable for use.

#### **2.9.12 Qualifications of Maintenance Personnel**

Personnel designated as Respiratory Protective Equipment (RPE) maintenance personnel shall be trained and certified in the maintenance and servicing of the equipment that they are expected to maintain by the manufacturer or the manufacturer’s appointed agent. No attempt should be made to replace components, adjust or make repairs beyond the manufacturer's recommendations.

#### **2.9.13 Air Purity (Quality)**

Breathable air supply meeting the quality and purity requirements of EN 12021-2014

The employer shall ensure that compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration meets with the following specifications:

- Oxygen content (v/v): 19.5 – 23.5%
- Carbon Monoxide: shall not exceed 5 parts per million
- Carbon Dioxide: shall not exceed 500 parts per million
- Oil Mist: shall not exceed 0.5 mg/m<sup>3</sup>





- Odour: Lack of noticeable odour

#### 2.9.14 Fitness of SCBA or Air-line Users

From a health perspective and to assure safety, it is important that the wearer can use SCBA/SABA properly, which requires:

- A good fit of the face mask to the face. The standard of fit shall be demonstrated by quantitative international well recognized test procedures or according to PDO PR- 2108:2019 “Fit Testing for Respirators Users”. Difficulty is sometimes encountered in fitting masks to workers with small faces, those who wear dentures or have skin conditions that may interfere with the mask to face seal.
- Hair on the face and/or head that is in contact with the seal of RPE will impair the efficiency of the seal and thus constitute an avoidable hazard to the safety of the wearer. Personnel who may be required to wear RPE shall be clean shaven.
- Medical fitness of SCBA/SABA users shall be determined by a physician using the standards in the PDO Fire Fighter’s Routine Medical Examination, CAA Airport Firemen's Medical or equivalent medical fitness standard acceptable to PDO's Chief Medical Officer. A validity of no longer than two years shall apply to the certificate of fitness. Refer to SP- 1230.

#### 2.10 Wind Direction Indicator (Windsack)

##### Application

All hydrocarbon facilities such as, but not limited to, gathering stations, production stations and tank farms shall be equipped with at least one windsack to indicate wind direction and speed. This requirement is not applicable for flowlines, pipelines and RMS.

##### Location

The windsack(s) shall be located so as to be visible from any location within the facility and in such a way as to be free from the effects of air disturbances caused by nearby objects. The location(s) shall be approved by TSE TA2.

##### Characteristics

The windsack shall be in the form of a truncated cone made of durable colorfast fabric and shall have a length of type A, B or C as indicated in below table. It shall be constructed so that it gives a clear indication of the direction of the surface wind and a general indication of the wind speed. The colour shall be fluorescent orange so as to make the wind direction indicator clearly visible and understandable from a distance of at least 500 m.



Parameter	Type A	Type B	Type C
Application	Hydrocarbon facilities	Hydrocarbon facilities	Hydrocarbon facilities & Aviation
Color	Fluorescent Orange	Fluorescent Orange	Fluorescent Orange
Fabric	- Fabric color fast tested to BS 3424. - Fabric tested to BS ISO 7854 & BS EN 5470 for durability.	- Fabric color fast tested to BS 3424. - Fabric tested to BS ISO 7854 & BS EN 5470 for durability.	- Fabric color fast tested to BS 3424. - Fabric tested to BS ISO 7854 & BS EN 5470 for durability.
Material	Polyurethane Coated Nylon	Polyurethane Coated Nylon	Polyurethane Coated Nylon
Length	1.1 – 1.5 m	2.10 – 2.50 m	3.60 – 3.80 m
Diameter at large end	0.35 – 0.48 m	0.45 – 0.65 m	0.85 – 0.95 m
Diameter at small end	0.20 – 0.22 m	0.22 – 0.35 m	0.40 – 0.55 m
Fitting type	Wire harness	Wire harness	Wire harness
SAP Material Number	1001540410	1001540411	1001540412
MRP Type	V1 (Stock)	V1 (Stock)	V1 (Stock)
Min/Max	50/80	200/400	60/100

**Note:** location and characteristics of windsocks in airports may be subject to approvals from Civil Aviation Authority CAA.

### 2.11 Other Personal Protective Equipment

This may include PPE for specific tasks such: lead aprons for x-ray protection; sleeve protectors, aprons, chemical spill suits when handling toxic or corrosive chemicals; leather jackets, trousers and spats for welding; thermal and cold protective clothing for work near furnaces and freezer rooms, chain mail gloves for butchery.

### 2.12 Training of Users

Training shall be provided to all employees who are or may be expected to use PPE when performing their job. The training shall include, but not limited to:

- How to determine when PPE is necessary?
- What PPE is required for the task?
- Where to obtain company-provided PPE?
- How to wear or adjust PPE?
- How to care for and maintain PPE, including disposal?
- PPE is secondary protection used in conjunction with guarding and other engineering controls to minimize hazards to employees.
- Employees shall demonstrate that they understand all the above provisions



before they can begin working while using PPE. The Personal Protective Equipment Training and Certification Log (Refer Appendix 7) is used for documentation of all training. Training is repeated whenever any of the following events occur:

- Changes in the workplace render previous training obsolete.
- Changes in types of PPE render previous training obsolete.
- Supervisors, Project Safety Coordinator and/or Site Manager have reason to believe the employee does not understand its proper use.
- Training and certification records are retained by the respective Training Coordinator for the length of employment. Records are stored in the employee's training file.

Personnel designated as users of SCBA shall be trained in its usage SP 1157 “Specification for HSE Training”.

### 3 Visitors and Contractors

Visitors, both male and female travelling into areas of Operation / project controlled by PDO shall be provided PPE for protection. This includes hearing protection, safety glasses, and hard hats. These items are provided to our visitors at no cost. The tour guide shall not allow the visitor to wander into an area of increased hazard without the necessary PPE. Personnel from Government Bodies visiting the sites shall be issued PPE such as hardhats and safety glasses on a returnable basis and PPE such as earplugs are issued on a non-returnable basis.

Lady visitors in abayas are restricted from entering operational area. If inspections of instruments and other moving parts/equipment are required, then the tour guide shall ensure that coveralls are used.

### 4 Definitions and Abbreviations

<b>Corrosive:</b>	A compound that strongly irritates, burns, corrodes, or destroys living tissue. These are bases (alkalis) that are soluble in water (i.e., sodium hydroxide, potassium hydroxide, etc.) or acids such as hydrochloric acid, sulphuric acid
<b>EPZ</b>	Emergency Planning Zone  The Emergency Planning Zone (EPZ) is a geographical area surrounding a well, pipeline, or facility containing hazardous product that requires specific emergency response planning. It defines the extent of the hazard to the 100 ppm H2S end point (for 60 minutes) given the worst-case release. The EPZ is typically measured in kilometers.



<b>Inner SIMOPS Zone</b>	A simultaneous operations (SIMOPS) zone is defined as an area where two activities (e.g. production and drilling) are undertaken simultaneously under different control systems in overlapping spheres of influence or hazards zones. The extent of the Inner SIMOPS Zone is where a level of 300 ppm H <sub>2</sub> S end point occurs with 1E-03 per year frequency.
<b>Lanyard:</b>	A short flexible rope, strap, or webbing connecting the employee to the anchorage point or lifeline.
<b>Lifeline:</b>	An anchoring cable rigged between two fixed anchorage points on the same level.
<b>Permissible Exposure Limits (PEL):</b>	The exposure limit for a substance adopted by PDO based on published and mandated exposure limits. The PEL indicates the permissible concentration of air contaminants to which nearly all workers may be repeatedly exposed eight hours a day, 40 hours a week, over a working lifetime (30 years) without adverse health effects.
<b>Outer SIMOPS Zone</b>	A simultaneous operations (SIMOPS) zone is defined as an area where two activities (e.g. production and drilling) are undertaken simultaneously under different control systems in overlapping spheres of influence or hazards zones. The outer extent of the Inner SIMOPS Zone is where a level of 300 ppm H <sub>2</sub> S end point occurs with frequency. Of 1E-4(i.e.10 less likely that you will have H <sub>2</sub> S at a concentration of 300ppm than the Inner SIMOPS Zone)
<b>Safety Harness</b>	Chest, chest-waist, and full-body harnesses that encompass the torso and are attached to other parts of the fall protection system.
<b>Standard Safety Shoe:</b>	For PDO employees, a foot covering consisting of a solid vinyl or leather upper and slip- resistant sole. This is the minimum acceptable footwear for employees.
<b>Qualitative Fit Test (QLFT)</b>	A pass/fail test to assess the adequacy of respirator fit that relies on the individual's response to a test agent.
<b>Quantitative Fit Test (QNFT)</b>	Means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

## 5 Formats, Templates & additional information

### 5.1 Appendix 1 – H<sub>2</sub>S Detection System

#### Personal Detection and Protection Equipment – extract from SP1219 (WE H<sub>2</sub>S Specification)

This section describes detection equipment and personal protective equipment (PPE) that shall be used in all PDO oil and gas drilling and well servicing and work over operations where the work area atmospheric concentration of Hydrogen Sulfide could exceed the action levels of 10 ppm of Hydrogen Sulfide or 2 ppm of Sulfur Dioxide. In addition to providing personal protective equipment, personnel should be trained in the selection, use, cleaning, inspection, and maintenance of the PPE. The following H<sub>2</sub>S



Protective equipment shall be available at all H2S designated well sites or where H2S suspected (this includes all exploration and development wells):

- a. PDO approved personal H2S monitors (Compare or equivalent), with an audible and visual alarm set at 10 ppm, one per person on site plus 2 spares for visitors;
- b. When H2S well fluids are burnt then SO2 monitors are provided by the H2S Service Provider.
- c. two H2S gas generators (or equivalent) for testing the H2S monitors;
- d. PDO approved self-contained 15-minute escape sets, one per person (in line with BSEN 1146-2005 "Respiratory protective devices for self-rescue, Self-contained Open-circuit Compressed Air Breathing Apparatus, incorporating a Hood (compressed air escape apparatus with a hood)");
- e. a minimum of 6 Self-contained 30-minute breathing apparatus (SCBA) sets in line with SP- 1234, Personal Protective Equipment and BSEN 137-2007 "Specification for Respiratory Protective Devices: Self-Contained Open-Circuit Compressed Air Breathing Apparatus"
- f. a minimum of 3 spare cylinders (pop comes in bottles with 30-minute capacity for above;
- g. resuscitation equipment;
- h. a minimum of 2 Draeger Hand pump testers with adequate full-range supply of H2S and CO2 tubes;
- i. a portable explosive gas tester (JW sniffer or equivalent). Continuous monitors are normally used on Well Pulling Hoist operations only.
- j. Site monitors with audio and visual alarms placed around well head, flare pit and muster area.

**Note: wireless H2S sensors are not allowed as they interfere with current other radio frequencies**

**Note:** Continuous H2S monitoring equipment is not always considered necessary during Well Services operations as points of discharge are controlled. Accidental discharge is possible due to system failure, but this would not necessarily be detected by a fixed monitoring system with limited sensors. Personal monitors are enough for, and more suited to, detecting accidental discharges of this kind. However, for known Level 3 areas (Greater Birba, Ghaba, etc.) the H2S Continuous monitoring system and cascade system are mandatory.

The following additional PDO approved H2S protective equipment is required on High Risk wells:

**a) Full-face escape sets:**

These escape sets shall be in accordance with the requirements of the PDO HSE Standards Manual, now described in *SP-1231, HSE Specification* -



*Occupational Health.* The distribution and control of use is administered directly by the Well Site Supervisor.

**b) Compressed air supplied BA:**

Sets for two persons with trolley-mounted compressed air bottles, operated in “cascade mode”, and fitted with high pressure airlines and positive pressure face mask sets.

Such BA sets shall be fully compatible and comply with *SP-1234, Personal Protective Equipment* and each face mask set shall also be fitted with a quick release connection, check valve and 10-minute backup compressed air bottle to permit use as a self-contained escape set. These systems shall be used for extended operations such as rigging up and down of equipment or other operations where a SCBA might be cumbersome.

**All safety equipment shall be visually checked at every rig up, especially the air content of the escape sets, BA Sets and spare bottles and standard tests shall be performed.**

**A comprehensive safety equipment inspection shall be carried out once per week including a complete check of all BA equipment, which shall ideally be combined with a BA exercise.**

If the atmospheric concentration could exceed action levels for Hydrogen Supplied or Sulfur Dioxide, detection instruments shall be available on location. In those instances where the Hydrogen Supplied atmospheric concentration may exceed the measurement range of the detection instruments in use, an alternative instrument shall be available on location that can measure atmospheric concentrations up to 300 ppm. If Sulfur Dioxide levels could exceed the action level for Sulfur Dioxide (e.g., during flaring or other operations producing Sulfur Dioxide), either portable Sulfur Dioxide detection instruments or length-of-stain detectors, with a supply of detector tubes, shall be available on location for determining the Sulfur Dioxide concentration in the area and to monitor areas impacted by Sulfur Dioxide gas when fluids containing Hydrogen Sulphide are burned. An adequate number of fixed or portable or both type detectors shall be provided for the safety of personnel working. Prior to commencement of operations, there shall be a clear understanding as to who will provide detection equipment.

## 5.2 Appendix 2 – Gas detectors

Gas detectors are referred to as portable, personal & transportable gas detectors.

### Operation and maintenance

All detectors shall have been proven to be in good physical condition and to operate satisfactorily in a non-hazardous area, before any attempt is made to operate them in any hazardous area. Therefore, prior to use, all monitors shall be inspected for physical



condition and be subjected to a 'Bump test' by users.

Dents, kinks, bends, blockages and holes in the sample probe may affect the sample and give a false reading. A damaged battery, damaged fuel reservoir or cracks in the casing could make the instrument unsafe or unreliable or both. Contamination, e.g. water or dust, could give false readings and may damage the instrument.

A damaged display would make the instrument difficult or impossible to read and a broken alarm may not register a hazardous situation. Any air inlet filters shall be clean in order to allow an unrestricted airflow into the instrument. It is also important to check the integrity of other parts such as the carrying handle or case and shoulder strap.

All 'bump tests' and maintenance of 'portable meters' shall be carried out in a non-hazardous area and in accordance with the manufacturer's instructions, using the recommended test kit / equipment.

All 'portable detectors' for use in hazardous areas are certified as Intrinsically Safe by an approved certifying body. No modification to the apparatus is permitted, EVEN THE USE OF AN ALTERNATIVE BATTERY TYPE, as this will automatically invalidate certification and render the instrument dangerous for use in flammable atmospheres

A low battery indicator, distinguishable from the 'set-point' alarm, is normally present on personal instruments. This may not shut down the instrument immediately, but the instrument shall not be taken into service until it has been recharged. If the low battery indicator annunciates when work is underway then the work area shall be cleared and only re-started when a fully functioning instrument becomes available. The instrument shall only be recharged in a safe area, away from the area being monitored.

Before being repaired or maintained the gas monitor shall be moved to a safe place outside the area being protected, e.g. a workshop or office. If hazards are still potentially present, then it will be necessary to use a replacement personal gas monitor until the original is repaired.

Failure to comply with these requirements may render the instrument unreliable and therefore dangerous for use.

*Note: Refer to SP1231 for Personal Gas Detection Set Points*

### **Frequency of checks**

It is important that procedures for inspection including, function check (bump test), calibration and maintenance routines for personal monitors are put in place to ensure correct operation.

Monitor performance may degrade with time and accuracy will reduce depending on the type of monitor and operating conditions. These factors will influence the frequency of inspection, maintenance and calibration.

The user shall consider the sensor type, operating conditions, required use / accuracy of the monitor and manufacturers' guidance to assess the frequency of inspection and/ or calibration. For example:

- Any personal gas monitor used to check the atmosphere inside a confined space shall require a bump test before and after testing before allowing entry.
- Any personal gas monitor used to check for toxic chemicals shall require Bump



testing before use or once in a day.

### **Calibration**

It may not be possible to measure the required gas with the same monitor. As a minimum a full calibration check using the new gas shall be carried out as per manufacturer recommended practice for the type of gas detectors.

Calibration of personal gas monitors is normally done using a gas mixture from a cylinder; it is convenient and accurate. In many cases obtaining a calibration gas in a cylinder is a physical impossibility so calibration shall be done with another gas mixture and calibration factors used. Use of calibration factors shall only be done with the recommendation of the manufacturer.

Many gas sensors are sensitive to pressure and care shall be taken when calibrating instruments, that true readings are produced. When using a gas mixture cylinder to calibrate a diffusion instrument the gas shall be passed through a calibration chamber and out to atmosphere. Excessive flow through the chamber may lead to over pressuring the sensor and raise the possibility of false readings. For pumped (aspirated) systems it is normal to flow the gas to waste and allow the instrument to draw the mixture from a tee-piece or reservoir in the line. Again, care shall be taken not to set the flow too high or low as similar problems may occur as for diffusion instruments. On aspirated systems care shall be taken to ensure that all joints in the sampling system are secure as leakage into the system will cause false readings.

### **Procurement**

PDO and its contractors shall buy only calibrated type and each of these gas detectors shall follow the manufacturer recommended standard or shall calibrate every six months, whichever is lower frequency shall be adopted. No disposal type detectors shall be used within PDO concession areas.

PDO approved models shall only be used by contractors within PDO concession area.

### **5.3 Appendix 3 – OSHA Standard**

<http://www.osha.gov/SLTC/etools/eyeandface/employer/requirements.html#Criteria>  
for PPE





#### 5.4 Appendix 4 – Glove Types for Chemical Handling

This table provides the recommended glove type for handling specific chemicals. (List is not all-inclusive).

Chemical/Product Name	Recommended Glove Type
Acetone	Butyl Rubber
Amines	Nitrile
Breaxits with Naphtha, Toluene, and Xylene	Polyvinyl Alcohol
Chlorine	Neoprene
Cleaning Solvents	Nitrile
Corexit (s) with Isopropanol	Nitrile
Corexit (s) with Gluteraldehyde	Neoprene
Crude, Condensate, NGLs	Nitrile
Diesel Fuel	Nitrile
Ethylene Glycol	Nitrile
Gasoline	Nitrile
Greases	Nitrile
Inorganic Acids (i.e., Sulfuric Acid)	Neoprene or Nitrile
Inorganic Bases (i.e., Caustic Soda)	Neoprene or Nitrile
Lube Oils/Naphtha's	Nitrile
Methanol	Butyl Rubber
Methyl ethyl Ketone	Butyl Rubber
NAF (Non-Aqueous Fluid)	Neoprene or Nitrile
OBM (Oil Base Mud)	Neoprene or Nitrile
Pesticides	Nitrile
Sulphur Compounds	Neoprene
Trichloroethane, 1, 1, 1	Polyvinyl Alcohol
Varsol	Nitrile








### 5.5 Appendix 5A – Additional information on Different Glove Types

Image	Type	Material	Description	Standard Code
	General use Glove (Heavy)	leather, different materials	Provide protection against cuts, abrasions, punctures, burns, and sustained heat or cold. They are not chemical resistant or electrically insulating, and their temperature- resistant properties are reduced if they become wet.	EN 420-2009
	Protective gloves against mechanical risks	polyurethane foam, high-density polyethylene (HDPE), polyester, polyurethane, polyurethane-coated, in high-density polyethylene	used to protect wearers against machinery which could injure their hands	EN 388-2018
	Electrical insulating gloves	Rubber	Protection against electric shock and used for live working power transmission and distribution lines	EN 60903-2014
	Chemical Gloves	synthetic rubbers (polychloroprene)	Protective gloves against chemicals and micro-organisms	EN 374-2016
	Medical gloves	Nitrile	for single use (usually medical) EN 455-1 Testing of gloves for freedom from holes. EN 455-2 Tests for physical properties, dimensions and force at break EN 455-3 Tests for biological evaluation. EN 455-4 Testing for shelf life determination.	EN455-2009-1,2,3,4 ASTM D3578







### 5.6 Appendix 5B – Additional information on Different Glove Types

Image	Type	Material	Description	Standard Code
	Heat and Fire Gloves	leather, different materials	Protective gloves against thermal risks	EN 407-2004
	Protective gloves against cold	cold Insulation materials	protect the hands from cold burns	EN-511-2006
	Non-Latex Soft Gloves	polyvinyl chloride, nitrile rubber, or neoprene	Meet internationally accepted standards for protective gloves against chemicals, the gloves are used for those with skin allergic.	EN455-2009-1,2 EN420-2009 ASTM D3578-2005
	Latex Soft Gloves	Latex (Rubber)	Meet internationally accepted standards for protective gloves against chemicals and is powder-less.	EN455-2009-1,2 EN420-2009 ASTM D3578-2005
	Impact Resistant (General Purpose)	Multiple Materials	Daily routine activities in process environment (operating tools and equipment, turning valves, handling pipe, handling materials with rough surfaces) <ul style="list-style-type: none"><li>• Protects against abrasions, cuts, impacts, and pinch points</li><li>• Thermo Plastic Resin (TPR) or rubber impact protection to dorsal (back) side of hand and fingers</li><li>• Adequate/good grip</li><li>• Anti-fatigue properties</li><li>• Good dexterity</li><li>• Moderate penetration / puncture protection</li><li>• Washable (preferred)</li></ul> Note: Worker should match glove size to hand.	EN 420-2009 EN 388-2018







### 5.7 Appendix 5C – Additional information on Different Glove Types

Image	Type	Material	Description	Standard Code
	SKELETON Nit 5 (Honeywell)	Multiple Materials	<p>Honeywell Skelton Impact Resistant Cut level 5 Nitrile palm coated Gloves with metacarpian protection, paramid &amp; Gauge13 composite fiber.</p> <ul style="list-style-type: none"> <li>• Cut and Puncture Protection</li> <li>• Knitted glove in composite and para-aramid yarn. Knitting technique provides excellent fit and high dexterity.</li> <li>• The composite yarn is reliable and safe protection. The para-aramid yarn resistance contact heat and cut risks, Plated polyamide inside</li> <li>• Handling of heavy parts with high cut risks in oily or greasy environment.</li> <li>• Shock absorber pad on top of the hand to protect metacarpian and fingers.</li> <li>• Black nitrile foam coating on palm.</li> <li>• The foam coating makes the glove more flexible than standard nitrile.</li> <li>• Rubber pad on top of the hand and fingers. Helps to protect metacarpian and fingers from shocks.</li> <li>• CE CATEGORY: II Intermediary risks</li> </ul>	<p>EN 420-2009 EN 388-2018 EN 407-2004</p>
	Light Duty Gloves	Cloth, different light materials	<ul style="list-style-type: none"> <li>• Tasks requiring dexterity greater than general purpose (writing, handling small components)</li> <li>• Protection from minor abrasions, cuts</li> <li>• Excellent grip</li> <li>• Good dexterity</li> <li>• Washable (preferred)</li> </ul>	<p>EN 420-2009</p>
	Puncture Resistant	puncture resistant materials	<p>For Working with tools/equipment/materials with sharp points involving needles, barbs, piercing devices</p>	<p>EN 388-2018</p>
	Puncture Resistant Gloves, UVEX Phynomic Wet,60060	polyamide/elastane	<ul style="list-style-type: none"> <li>- Construction: five-finger gloves, aqua-polymer foam coating on palm and fingertips, knitted cuff</li> <li>- Coating: breathable aqua-polymer foam coating</li> <li>- Color: blue/anthracite</li> <li>- Resistance: for dry areas and damp/oily working conditions</li> <li>-The water repellent coating and liner</li> <li>-Excellent dexterity, Good dry and wet grip, High level of breathability</li> <li>-Water repellent coating and liner</li> <li>-Free of harmful substances in accordance with Oeko-Tex Standard 100</li> <li>-Free from all solvents, catalysts.</li> </ul>	<p>EN 388-2018</p>










### 5.8 Appendix 5D – Additional information on Different Glove Types

Image	Type	Material	Description	Standard Code
	Cut Resistant Gloves	para-aramid yarn Plated polyamide	<p>Honeywell Sharpflex PU. Knitted glove in composite and para-aramid yarn. Plated polyamide inside. Black PU coating on palm. High dexterity.</p> <ul style="list-style-type: none"> <li>• Increase the abrasion resistance and allows to use in slight greasy environments.</li> <li>• CE CATEGORY: II Intermediary risks. In accordance with standards:</li> <li>• Glove/liner color: Yellow and green</li> <li>• Coating Type: Polyurethane</li> <li>• Coating Color: black</li> <li>• Harmlessness: In conformity with the European standards</li> <li>• Cut and Puncture Protection</li> <li>• knitting technique provides the glove with excellent fit and high dexterity.</li> <li>• Plated polyamide inside</li> <li>• Handling of heavy parts with high cut risks in dry or slightly greasy environment.</li> <li>• Black PU coating on palm.</li> </ul>	EN 420-2009 EN 388-2018
	Chemically Resistant Gloves "UVEX Rubiflex S"	Butyl Rubber Nitrile Polyvinyl Alcohol (PVA) Neoprene Polyvinyl Chloride (PVC)	<p>Handling chemicals such as acids, caustics, brines, soda ash, hydrocarbons, and drilling fluids, protects against skin contact with chemicals</p> <p>Note: PVC gloves will not survive when immersed in ketone. Note: "Glove Types for Chemical Handling" above for selecting the appropriate glove for an application. Note: For more information, refer to the Material Safety Data Sheet (MSDS) for the chemical in use.</p>	EN 374-2016 EN 388-2018
	Heat Resistance Gloves	leather or insulated leather	<ul style="list-style-type: none"> <li>• Welding, flame cutting, burning</li> <li>• Contact with hot or cold surfaces</li> <li>• Protection from heat, cold, sparks, flame</li> <li>• Extended gauntlet cuff</li> </ul>	EN 407-2004
	VES Heat Guard Hot Mill Gloves - HG 3058	100% Cotton Fabric	<p>AVES Heat Guard Hot Mill Gloves - HG 3058</p> <ul style="list-style-type: none"> <li>• Fabric Weight: 32oz</li> <li>• Canvas cuff</li> <li>• Reinforced palm</li> <li>• Raised material outside</li> <li>• Resistant Temp: 25C-350C</li> <li>• Length: 36cm</li> </ul>	EN 407-2004



### 5.9 Appendix 5E – Additional information on Different Glove Types

Image	Type	Material	Description	Standard Code
	Honeywell STR50 Medium thermal insulation gloves	Mix Cotton/polyester/ Nylon Terry glove (900g/m2) Knitted wrist	handling warm parts with contact temp up to 100Deg C made of mixed cotton/polyester/Nylon.	EN 374-2016 EN 388-2018
	Thermally Insulated Gloves	Thermal Insulation material	<ul style="list-style-type: none"> <li>Working in cold environments (below -5°C or +20°F)</li> <li>Protects against the effects of extreme cold including hypothermia and thermal burns</li> <li>Waterproof and wrist seals to keep heat from escaping</li> </ul>	EN-511-2006
	Extreme Cold Gloves	Thermal Insulation material Heavy duty mitten	<p>Extreme cold environments (below -25°C or -15°F)</p> <p>Heavy duty mitten outer layer</p> <p>Thickly insulated inserts – removable to allow drying</p> <p>Minimal dexterity</p>	EN-511-2006
	Electrically Insulated Gloves	Seamless rubber	<ul style="list-style-type: none"> <li>Work on electrical equipment</li> <li>Protects against electrical burns and shocks.</li> <li>Note: Electrical gloves are classified based on their protection at various energy levels. Select the appropriately rated glove for the system to which the worker is exposed.</li> </ul>	EN 60903-2014
	Regeltex Insulation Gloves for Electrical works, GLE36-00	Rubber	Production is subjected to a system for ensuring EC quality of production by means of monitoring to implement Regulation (EU) 2016/425 on personal protective equipment which classified insulating gloves for live working in Category III (mortal risks).	EN 60903-2014
	Medical Gloves	polyvinyl chloride, nitrile rubber, or neoprene	<ul style="list-style-type: none"> <li>First Aid or medical emergency response, medical examinations, sample handling</li> <li>Contact with unhygienic surfaces (cleaning bathroom appliances)</li> <li>Protects against bloodborne pathogens, surface contaminations, and mild detergents</li> <li>High dexterity</li> </ul>	EN455-2009-1,2,3,4 ASTM D3578
	Food Handling Gloves	polyethylene, vinyl	<ul style="list-style-type: none"> <li>Food preparation excluding cutting</li> <li>Protective liners used inside other gloves</li> <li>Protects against blood borne pathogens, contaminations, and mild detergents</li> <li>High dexterity</li> </ul> <p>Note: Do NOT use latex gloves for food preparation due to the potential for allergic reaction by a diner.</p>	ASTM D7329



## 6 Appendix 6A/B – PPE Checklist

PPE Checklist - Appendix 6A			
OBJECTIVE	QUESTION	Score	SUGGESTED GUIDE NOTE
<b>PPE requirements are in place to control employee exposure to chemical and/or physical hazards, but shall be employed only after feasible engineering controls have been implemented</b>	Is there a personal protective equipment program?		Link to PPE Specification - SP1234
	Does the program include a written assessment describing the specific PPE needed for each task and activity?		PPE assessment records to specific activities
	Are PPE controls for Industrial Health & Safety hazards used until engineering and/or administrative controls are implemented?		Demonstrate the Risk Assessment using the HEMP tool
	Have medical surveillance requirements for PPE been implemented (ex., respirator, noise)?		Demonstrate the Risk Assessment using the HEMP tool
	Are PPE controls reviewed periodically to ensure effectiveness?		Records of these reviews to be made available
	Are PPE controls for Industrial Health & Safety hazards reviewed each time there is a change in process or equipment?		Demonstrate the Risk Assessment using the HEMP tool
	Is there documentation that management enforces PPE use?		1) Specification to describe the mandate for use of PPE 2) PPE policy to be posted and made visible 3) Consequence Management for non-compliance




PPE Checklist - Appendix 6B

OBJECTIVE	QUESTION	Score	SUGGESTED GUIDE NOTE
<b>Implement use of PPE</b>	Is PPE used as determined in the written plan by all employees, contractors and visitors?		1) Support of the HSE Team Leaders in this area will help one verify, through observation <i>and interview</i> , that employees, contractors and visitors use PPE as determined by the Hazard Assessments, JHA, or another defining document. 2) Document this assessment - Line Audit or the Level 2 & 3 is a good audit report for this
	Are adequate supplies of required PPE readily available (appropriate type, style and size)?		1) Support of the HSE Team Leaders in this area will help one verify, through observation <i>and interview</i> , that employees, contractors and visitors use PPE as determined by the Hazard Assessments, JSA, or another defining document. 2) Document this assessment - Line Audit or the Level 2 & 3 is a good audit report for this
	Are <u>employees</u> offered a choice of PPE (type, style and size)?		1) Complete the comprehensive inventory of PPE required / applicable / / issued / kinds / - THIS WILL BE VERIFIED THROUGH A REVIEW OR AUDIT.
	Do employees inspect PPE prior to use?		1) File all training records of employees. 2) Take the support of HSE Team Leaders to ensure every line or modality has been issued the appropriate PPE and that all employees have a good understanding of PPE, (when it is required, how it is selected, and the differences in protection.)
	Are <u>employees</u> trained in proper use & selection of PPE?		1) Take the support of HSE Team Leaders to ensure all relevant personnel have been issued the appropriate PPE and that all employees inspect PPE prior to use.
	Are written Hazard Assessments conducted to define specific PPE needs?		1) Take the support of HSE Team Leaders to ensure all relevant personnel have been issued the appropriate PPE and that all employees inspect PPE prior to use.
	Is PPE maintained in good condition, properly stored and fitted to employees/visitors?		Inspection of PPE used by employees
	Are required medical evaluations given to <u>personnel</u> who wear PPE (i.e., physically capable of wearing respiratory protection)?		Verify with the OH team on the number of medical evaluations conducted for personnel exposed to the area-specific hazard
	Are engineering & administrative controls considered for feasibility before reliance on PPE?		Verify the HEMP and relevant JHA Document
	Is PPE used as interim control until engineering and/or administrative controls are implemented?		1) The PPE assessments shall be reviewed annually and a Management of Change process that includes HSE considerations shall be implemented
	Is PPE used as interim control until engineering and/or administrative controls are implemented? Are hazard assessments reviewed annually and prior to any process changes?		2) Document this PPE assessments for all areas of activity. 1) File every document related to PPE in your program file
	Are hazard assessments reviewed annually and prior to any process changes? Are PPE training records maintained?		2) Training material to be filed. 3) Training material includes use of video tapes, please view it so that the contents are clear to you Verify training records of personnel
	Are PPE requirements incorporated into operating procedures?		1) SOPs or work instructions to have the use of PPE included in them.





### 7 Appendix 7 PPE Training Log

 <b>Personal Protective Equipment Training and Certification Log</b>							
Trainee Employee Number	Name	Department	PPE Training Course Name	Instructor	Instructor Employee Number	Starting Date	Ending Date